своевременно исправлены оператором системы или самим персоналом.

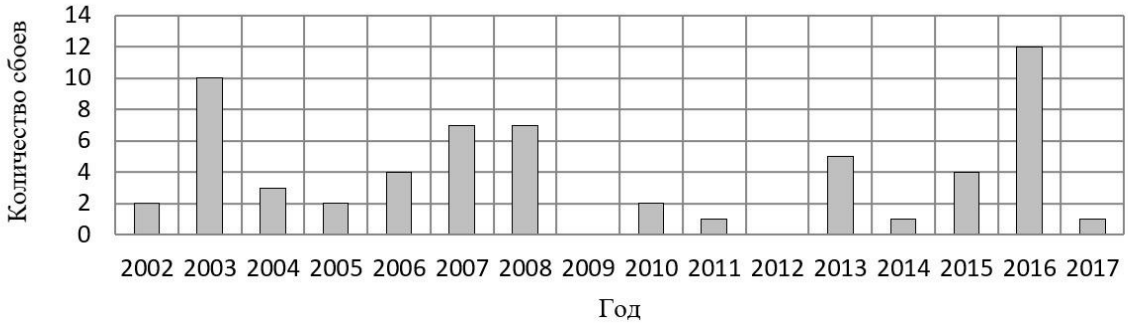

Рис. 1. Количество неисправностей на установке VariSource Series 200

На данной установке в Масариковом онкологическом институте было успешно облучено более 2000 онкологических пациентов за 15 лет. Поэтому в целом можно считать, что установка оправдала себя за время работы.

MEDICAL BIOTECHNOLOGY: ITS PROSPECTS AND DEVELOPMENT

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Abstract. Medical (red) biotechnology is a process which utilizes organisms to improve health care and help the body to fight diseases. This technology is beneficial in the field of Veterinary science and poultry farming as well. Other areas where red biotechnology is useful are in the fields of tissue engineering, cancer research, production of biochips and so on.

Medical (red) biotechnology is a branch of modern biotechnology which is utilized in the field of medicine. It is of great value not only to the pharmaceutical industry but also to the medical profession as it facilitates the enhancement of the quality of life on one hand and the alleviation of human suffering on the other.

Red biotechnology has become a very important part of the medical field and is of tremendous use in the field of diagnostics, gene therapy and clinical research and trials.

Genetic engineering and the development and production of various new medicines to treat the different life threatening diseases, are also part of the benefits of red biotechnology. The various branches of medicine in which this technology assumes great importance are the production of combination vaccines like DPT, combined with Hepatitis B, Hepatitis A, as also a polio vaccine which is meant to be injected. This technology is beneficial in the field of Veterinary science and poultry farming as well. Other areas where red biotechnology is useful are in the fields of tissue engineering, cancer research, production of biochips and so on. The field of tissue engineering

utilizes this technology to produce artificial skin, bone, cartilage, and spinal discs. As such, tissue engineering deals with the process of tissue implantation.

The required cells are cultivated on bio- degradable and bio- compatible materials. Red biotechnology is also used in the treatment of Parkinson's disease as also in the field of cancer research. To treat Parkinson's disease, the technology helps to discover the mutations as well as the amplifications of the gene that causes the disease. In the field of cancer research, the technology makes it possible to detect whether the anti- cancer drugs are effective for a particular patient as the efficacy of these drugs depend on the gene disposition of the patient to whom the drug is administered.

ВОЗДЕЙСТВИЕ ПЕРЕМЕННОГО ВЫСОКОЧАСТОТНОГО МАГНИТНОГО ПОЛЯ НА ЖИВЫЕ ОРГАНИЗМЫ

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INFLUENCE OF ALTERNATING HIGH-FREQUENCY MAGNETIC FIELD ON LIVING ORGANISMS

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In this report the influence of alternating high-frequency magnetic field on living organisms is presented.

В настоящее время в медицинской практике известно большое количество способов воздействия на живые организмы с целью их излечения от онкологических заболеваний. Одним из таких воздействий является переменное высокочастотное магнитное поле определенных характеристик. Исследовалась зависимость биологического эффекта от таких характеристик поля, как: времени нарастания, амплитуды магнитной индукции, частоты. Перед нами стояла задача доказать или опровергнуть предположение о том, что переменное магнитное поле высокой частоты и определенных характеристик провоцирует гибель пораженных клеток.

Разработана и собрана электрическая схема, создающая переменное высокочастотное магнитное поле с возможностью отслеживания и программного изменения его характеристик.

Проведено исследование радиационно-индуцированной адаптации на дрожжевую культуру штамма Saccharomyces cerevisiae. Дрожжевая культура